

115TH CONGRESS }      HOUSE OF REPRESENTATIVES }      REPORT  
*1st Session*      }      }      115-30

PACIFIC NORTHWEST EARTHQUAKE PREPAREDNESS ACT  
OF 2017

MARCH 9, 2017.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SHUSTER, from the Committee on Transportation and Infrastructure, submitted the following

## REPORT

[To accompany H.R. 654]

[Including cost estimate of the Congressional Budget Office]

The Committee on Transportation and Infrastructure, to whom was referred the bill (H.R. 654) to direct the Administrator of the Federal Emergency Management Agency to carry out a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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The amendment is as follows:

Strike all after the enacting clause and insert the following:

**SECTION 1. SHORT TITLE; DEFINITION.**

(a) **SHORT TITLE.**—This Act may be cited as the “Pacific Northwest Earthquake Preparedness Act of 2017”.

(b) **CASCADIA SUBDUCTION ZONE DEFINED.**—In this Act, the term “Cascadia Subduction Zone” means the landward-dipping fault that is approximately 684 miles long, separates the Juan de Fuca and North America plates, and stretches along a portion of the western coast of the United States beginning off Cape Mendocino, California, along the State of Oregon, the State of Washington, to Northern Vancouver Island, British Columbia.

**SEC. 2. EARTHQUAKE EARLY WARNING SYSTEM FOR CASCADIA SUBDUCTION ZONE.**

(a) **PLAN FOR PURCHASE AND INSTALLATION.**—

(1) **DEVELOPMENT AND FUNDING.**—The Administrator of the Federal Emergency Management Agency shall—  
 (A) develop a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone; and  
 (B) identify the funds necessary for implementation of the plan.

(2) **SUBMISSION TO CONGRESS.**—Not later than 90 days after the date of enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a copy of the plan.

(b) **REPORT TO CONGRESS.**—Not later than 1 year after the date of enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report that summarizes the actions taken to implement the plan.

(c) **DEFINITIONS.**—In this section, the following definitions apply:

(1) **APPROPRIATE COMMITTEES OF CONGRESS.**—The term “appropriate committees of Congress” means the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Homeland Security and Governmental Affairs of the Senate.

(2) **EARTHQUAKE EARLY WARNING SYSTEM.**—The term “earthquake early warning system” includes—

(A) improvements to regional and geodetic networks that support building a capability for an earthquake early warning system; and  
 (B) seismometers, Global Positioning System receivers, and associated infrastructure.

**SEC. 3. EARTHQUAKE AND TSUNAMI TASK FORCE.**

(a) **IN GENERAL.**—The President shall establish an Earthquake and Tsunami Task Force for the purpose of developing a comprehensive strategy and recommendations on how the Nation should prepare and plan for, mitigate against, respond to, recover from, and more successfully adapt to a covered event in the Cascadia Subduction Zone.

(b) **TASK FORCE.**—

(1) **MEMBERSHIP.**—The membership of the Task Force shall include a cross section of subject matter experts representing the following:

(A) Relevant Federal agencies.  
 (B) The States of Oregon, Washington, and California.  
 (C) Indian tribes, local governments, and private sector representatives that may be impacted by a covered event in the Cascadia Subduction Zone.  
 (D) Universities, academia, and research institutions with expertise in topics relevant to the work of the Task Force.

(2) **CHAIRPERSON.**—The Administrator (or the Administrator’s designee) shall serve as the chairperson of the Task Force.

(3) **DETAILED EMPLOYEES.**—Members of the Task Force may detail employees to assist the Administrator (or the Administrator’s designee) in fulfilling the responsibilities of the Task Force.

(c) **COMPREHENSIVE STRATEGY.**—

(1) **STRATEGY.**—The comprehensive strategy to be developed under subsection (a) shall include the following:

(A) A description of how Federal agencies will coordinate to develop the ability to prepare and plan for, mitigate against, respond to, recover from, and more successfully adapt to the impacts of a covered event in the Cascadia Subduction Zone.

(B) A strategy to ensure collaboration between the Department of Transportation, the Department of Energy, the Coast Guard, the Corps of Engineers, and other Federal agencies, as appropriate, for purposes of—

(i) completing a needs assessment of Federal facilities in need of hardening for a covered event; and

(ii) developing a strategic plan to mitigate and retrofit Federal, State, tribal, and local critical assets for freight, energy, and transit purposes to withstand a covered event and to help save lives during and immediately after a covered event.

(C) A strategy—

(i) to assist State, tribal, and local governments in developing and implementing a coordinated and comprehensive plan to prioritize Federal, State, tribal, local, and private investments and activities to develop the ability to prepare and plan for, mitigate against, respond to, recover from, and more successfully adapt to the impacts of a covered event in the Cascadia Subduction Zone; and

(ii) to link any existing statewide mitigation plan with such a coordinated and comprehensive plan.

(D) With respect to the strategy described in subparagraph (C), an examination of the feasibility of the public sector, the private sector, and individuals to acquire earthquake insurance.

(E) An identification of funding opportunities to implement the comprehensive strategy and any recommendations made by the Task Force, including—

(i) existing funding opportunities across Federal agencies and other sources; and

(ii) potential new funding opportunities.

(F) An identification of barriers to obtaining funding for the implementation of the comprehensive strategy and recommendations on how to remove the barriers.

(G) A strategy for appropriate Federal agencies to collaborate with and assist State, tribal, and local governments in developing recommendations for cost-effective mitigation alternatives for aging State, tribal, and locally owned critical infrastructure.

(H) A strategy for assisting State, tribal, and local governments in developing a recovery plan prior to a covered event in the Cascadia Subduction Zone that addresses how State, tribal, and local governments may want to rebuild after the event.

(I) An identification of the steps taken to date to develop an onshore and offshore earthquake early warning system and a description of the purpose and scope of such a system.

(J) An evaluation of the types of offshore earthquake early warning systems and recommendations and a cost estimate for an earthquake early warning system appropriate for the Cascadia Subduction Zone.

(K) Recommendations on how an earthquake early warning system should operate, including whether and how the system should interface with the private sector.

(L) A description of appropriate roles and responsibilities for Federal, State, local, and tribal governments, including who should operate and maintain an earthquake early warning system, the cost of the system, and possible funding sources for the system.

(M) A plan on how to integrate an earthquake early warning system into existing and new public alert warning systems and technologies, including mobile systems.

(2) USE OF EXISTING PLANS.—In developing the comprehensive strategy, the Task Force may use existing plans, studies, and other resources.

(d) RECOMMENDATIONS.—The recommendations to be developed by the Task Force under subsection (a) shall include recommendations on—

(1) potential administrative or legislative changes required to implement the comprehensive strategy;

(2) the funding required to implement the comprehensive strategy and the recommendations; and

(3) the order of priority for implementation of the comprehensive strategy.

(e) NATIONAL ACADEMIES.—

(1) COLLABORATION.—The Task Force shall work simultaneously and collaboratively with the National Academies.

(2) AGREEMENT.—The Task Force shall enter into an agreement with the National Academies under which the National Academies shall develop recommendations for a Federal research strategy to advance scientific understanding of a Cascadia Subduction Zone earthquake and resulting tsunami preparedness, including the following:

(A) Geologic conditions, ground motions, and tsunami hazards.

- (B) Implications of an effective automated early warning system.
  - (C) Effects of mega-earthquake and tsunami events on the built and natural environment.
  - (D) Social and behavioral factors for effective disaster preparedness and response.
  - (E) Cost-effective mitigation alternatives for legacy and aging infrastructure.
  - (F) Strategic planning for freight, energy, and transit network robustness.
  - (G) Tools that help communities invest their resources for the greatest benefit.
  - (H) Any other topics identified as necessary by the Task Force or the National Academies.
- (f) REPORT.—Not later than 18 months after the date of enactment of this Act, the Administrator shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Homeland Security and Governmental Affairs of the Senate a report of the Task Force that includes the following:

- (1) The comprehensive strategy to be developed under subsection (a).
- (2) The recommendations to be developed under subsections (a), (d), and (e).

(g) DEFINITIONS.—In this section, the following definitions apply:

- (1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Federal Emergency Management Agency.
- (2) COVERED EVENT.—The term “covered event” means an earthquake, tsunami, or combined earthquake and tsunami event.
- (3) TASK FORCE.—The term “Task Force” means the Federal interagency task force to be established under subsection (a).

#### **SEC. 4. NATIONAL PREPARATION AND RESPONSE EFFORTS RELATING TO EARTHQUAKES AND TSUNAMIS.**

The Administrator of the Federal Emergency Management Agency shall be responsible for the Nation’s efforts to reduce the loss of life and property, and to protect the Nation, from an earthquake, tsunami, or combined earthquake and tsunami event by developing the ability to prepare and plan for, mitigate against, respond to, recover from, and more successfully adapt to such an event.

#### **SEC. 5. ADDITIONAL HAZARD MITIGATION ACTIVITIES.**

Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170c) is amended by adding at the end the following:

“(f) USE OF ASSISTANCE.—Recipients of hazard mitigation assistance provided under this section and section 203 may use the assistance to conduct activities to help reduce the risk of future damage, hardship, loss, or suffering in any area affected by earthquake hazards, including—

- “(1) improvements to regional seismic networks in support of building a capability for earthquake early warning;
- “(2) improvements to geodetic networks in support of building a capability for earthquake early warning; and
- “(3) improvements to seismometers, Global Positioning System receivers, and associated infrastructure in support of building a capability for earthquake early warning.”

#### **PURPOSE OF LEGISLATION**

H.R. 654, as amended, would direct the Administrator of the Federal Emergency Management Agency (FEMA) to carry out a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone (CSZ).

#### **BACKGROUND AND NEED FOR LEGISLATION**

*FEMA’s role in earthquake preparedness, mitigation, response, and recovery*

FEMA was established in 1979 as the centralized location for federal disaster assistance and coordination of the federal government’s disaster activities. FEMA is the federal government’s lead agency for preparing for, mitigating, responding to, and recovering from disasters and emergencies related to all hazards, whether nat-

ural or man-made. The Post Katrina Emergency Management Reform Act (P.L. 109–295) requires FEMA to perform national level exercises to test and evaluate federal, state, local, and tribal governments' ability to respond and recover in a coordinated and unified manner to catastrophic incidents.

In the last four years, FEMA has organized several exercises focused on earthquake hazards. In 2016, FEMA along with other federal agencies, state, tribal, and local partners, and private sector participants conducted a preparedness exercise called Cascadia Rising. This exercise was based on a large earthquake on the CSZ and a resulting tsunami. One goal of this exercise was to train and test the effective coordination and integration of governments at all levels plus the private sector to ensure successful life-saving and life-sustaining response operations in the aftermath of a CSZ disaster.

#### *National Earthquake Hazards Reduction Program*

The federal government has supported efforts to assess and monitor earthquake hazards and risk in the United States under the National Earthquake Hazards Reduction Program (NEHRP) since 1977. The four federal agencies that have responsibility for long-term earthquake risk reduction are FEMA, the U.S. Geological Survey, the National Science Foundation, and the National Institute of Standards and Technology. These agencies coordinate their activities to assess U.S. earthquake hazards and conduct research to help reduce overall U.S. vulnerability to earthquakes.

FEMA is responsible for translating research and lessons learned from earthquakes into guidance, training, support for states and multistate consortia, and other program implementation activities. FEMA works with national model codes and standards groups; promotes better building code practices; assists states in developing mitigation, preparedness, and response plans; aids in the development of multistate groups; and supports comprehensive earthquake education and awareness. FEMA also develops and disseminates earthquakeresistant design guidance for new and existing buildings and lifelines and aids in the development of performancebased design guidelines and methods. FEMA applies earthquake hazards reduction measures, where applicable, to other natural and man-made hazards; provides preparedness, response, and mitigation recommendations to communities; and establishes demonstration projects on earthquake hazard mitigation to link earthquake research and mitigation with emergency management programs.

#### *Pacific Northwest seismic hazards*

Every state has the potential for earthquakes, and the U.S. Geological Survey estimates that “42 of the 50 states have a reasonable chance of experiencing damaging ground shaking from an earthquake in 50 years (the typical lifetime of a building).” Petersen, M.D., et al., 2014, Documentation for the 2014 update of the United States national seismic hazard maps: U.S. Geological Survey Open-File Report 2014–1091, 243 p., <https://dx.doi.org/10.3133/ofr20141091>. Earthquakes also pose a national challenge because 75 million Americans live in areas of significant seismic risk. Unlike hurricanes, tornados, and other storms, earthquakes strike without warning and may trigger devastating secondary effects, such as landslides, fires, tsunamis, and nuclear meltdowns.

The damage wrought by earthquakes can have a significant impact on people, infrastructure, and the economy.

Oregon, Washington, and northern California are at particular risk of an earthquake on the CSZ. Recent subduction zone earthquakes around the world underscore the catastrophic impacts the Pacific Northwest and the Nation will face when the next CSZ earthquake and tsunami occurs. Earthquakes on similar subduction zones include the 2004 magnitude 9.1 Indonesia earthquake and resulting tsunami that caused 228,000 fatalities; the 2010 magnitude 8.8 Chile earthquake that caused 500 fatalities; and the 2011 Japan earthquake and resulting tsunami that caused 18,000 fatalities.

States in the Pacific Northwest are partnering with the federal government to increase preparedness for the next earthquake with the goal of reducing earthquake losses, damages, and overall disaster losses. However, much more work is needed to establish an earthquake early warning system and to encourage smart building and mitigation measures that will ultimately drive down the costs of these disasters.

Scientists have recently discovered new faults and continue to apply new data, raising earthquake hazard estimates for several areas in California and increasing the likelihood of a magnitude 9.3 earthquake along the CSZ.

January 26, 2017, marked the 317th anniversary of the last great earthquake along the CSZ. The earthquake, which took place in 1700, is estimated to have been around 9.0 in magnitude. For years, scientists have warned residents in the Pacific Northwest that the area is due for another massive earthquake. An event of this magnitude has historically occurred approximately every 300 years.

#### *Earthquake warning system*

Today, the technology exists to detect earthquakes so quickly that an alert can reach some areas before strong shaking arrives. Since 2006, earthquake experts with the U.S. Geological Survey and a coalition of university partners, including the California Institute of Technology and the University of California at Berkeley, have been developing an onshore earthquake early warning system for the West Coast. Using a network of sensors across the state, the system, called ShakeAlert, began sending notifications of quakes in 2012 to a selected group of test users including California emergency management agencies, transit agencies, utilities, and private companies. An earthquake warning system began testing in the Pacific Northwest earlier this year.

The purpose of an earthquake early warning system is to identify and characterize an earthquake a few seconds after it begins, calculate the likely intensity of ground shaking that will result, and deliver warnings to people and infrastructure in harm's way. Studies of earthquake early warning methods in California have shown that the warning time could range from a few seconds to a few tens of seconds, depending on the distance to the epicenter of the earthquake.

For very large events like those expected on the San Andreas fault or the CSZ, the warning time could be much longer because the affected area is much larger. ShakeAlert can give enough time

to slow and stop trains and taxiing planes, to prevent cars from entering bridges and tunnels, to move away from dangerous machines or chemicals in work environments, and to take cover under a desk, or to automatically shut down and isolate industrial systems. Very little work, however, has been done to implement an off-shore earthquake early warning system.

Taking these actions before shaking starts can significantly reduce damage and casualties during an earthquake. It can also prevent cascading failures in the aftermath of an event. For example, isolating utilities before shaking starts can reduce the number of fires after the earthquake.

#### *Pacific Northwest Earthquake Preparedness Act of 2017*

H.R. 654, as amended, directs FEMA to identify funding to purchase and install an earthquake early warning system. It also directs the President to establish an Earthquake and Tsunami Task Force that will develop a strategy to protect and prepare for major earthquakes and tsunamis on the CSZ. H.R. 654, as amended, also clarifies that activities to help reduce the risk of future damage, hardship, loss, or suffering in an area affected by earthquake hazards are eligible for hazard mitigation grant program assistance from FEMA.

The Committee urges FEMA to encourage states at high risk from earthquake hazards to allocate hazard mitigation assistance to communities to conduct activities to reduce potential earthquake damage and loss. The Committee also expects that FEMA will continue to share with the Committee the lessons learned and after-action reports from the earthquake and tsunami related exercises.

#### HEARINGS

The Subcommittee on Economic Development, Public Buildings, and Emergency Management, held the following hearings and roundtable discussions on subjects related to matters contained in H.R. 654, as amended, during the 114th Congress:

*“Rebuilding after the Storm: Lessening Impacts and Speeding Recovery”* held on January 27, 2015. The purpose of the hearing was to launch an assessment of the rising costs of disasters, the cost effectiveness of disaster assistance, strategies to reduce disaster losses, and the appropriate roles of government and the private sector, and to consider reforms to save lives through improved alerts and warning systems and search and rescue.

*“Pacific Northwest Seismic Hazards: Planning and Preparing for the Next Disaster”* held on May 19, 2015. The purpose of the hearing was to assess the FEMA’s role in earthquake hazard preparedness, mitigation, response, and recovery, and to examine the efforts of the Pacific Northwest and seismic hazard experts to reduce disaster impacts and build stronger communities.

*“Earthquake Early Warning in the Pacific Northwest: Preparing for the Big One”* held on September 22, 2015. The purpose of the roundtable was to convene federal, state and local officials and academics to discuss earthquake resiliency programs and efforts, the Shake Alert earthquake early warning system, and next steps for developing an offshore earthquake early warning system.

#### LEGISLATIVE HISTORY AND CONSIDERATION

On January 24, 2017, Committee on Transportation and Infrastructure Ranking Member Representative Peter DeFazio (D-OR) introduced H.R. 654, a bill to direct the Administrator of the FEMA to carry out a plan for the purchase and installation of an earthquake early warning system for the CSZ.

On February 28, 2017, the Committee on Transportation and Infrastructure met in open session to consider H.R. 654. The Committee considered and adopted one amendment by voice vote—an amendment offered by Ranking Member DeFazio. The Committee ordered the bill, as amended, reported favorably to the House by voice vote with a quorum present.

#### COMMITTEE VOTES

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires each committee report to include the total number of votes cast for and against on each record vote on a motion to report and on any amendment offered to the measure or matter, and the names of those members voting for and against. There were no recorded votes taken in connection with consideration of H.R. 654, as amended, or ordering the measure reported. A motion to order H.R. 654, as amended, reported favorably to the House was agreed to by voice vote with a quorum present.

#### COMMITTEE OVERSIGHT FINDINGS

With respect to the requirements of clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in this report.

#### NEW BUDGET AUTHORITY AND TAX EXPENDITURES

Clause 3(c)(2) of rule XIII of the Rules of the House of Representatives does not apply where a cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted prior to the filing of the report and is included in the report. Such a cost estimate is included in this report.

#### CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

With respect to the requirement of clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the enclosed cost estimate for H.R. 654, as amended, from the Director of the Congressional Budget Office:

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, March 8, 2017.*

Hon. BILL SHUSTER,  
*Chairman, Committee on Transportation and Infrastructure,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 654, the Pacific Northwest Earthquake Preparedness Act of 2017.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Robert Reese.

Sincerely,

KEITH HALL.

Enclosure.

*H.R. 654—Pacific Northwest Earthquake Preparedness Act of 2017*

H.R. 654 would direct the Federal Emergency Management Agency (FEMA) to develop a plan to purchase and install an early warning system for earthquakes in the Cascadia Subduction Zone (a fault line that spans parts of California and all of Oregon and Washington State). FEMA would be required to submit this plan to the Congress as well as an additional report summarizing the plans implementation within one year of the bills enactment. The bill would not require FEMA to implement the plan nor would it authorize the appropriation of funds to do so. H.R. 654 also would direct the President to establish an earthquake and tsunami task force, for which the FEMA Administrator would be the chair, to develop and submit to the Congress a strategy and recommendations for preparing for, mitigating against, responding to, and recovering from an earthquake or tsunami in the Cascadia Subduction Zone. The task force would include individuals from the federal government, the Oregon, Washington, and California state governments, local governments, and private institutions.

Based on an analysis of information provided by FEMA, CBO estimates that preparing a plan for the development of an early warning system and for participating on a task force would cost less than \$500,000 annually over the 2018–2022 period.

Finally, the bill would stipulate that recipients of FEMA Hazard Mitigation Assistance (HMA) and Pre-disaster Mitigation Assistance (PMA) could use the assistance to reduce the risk of damage from earthquakes. Because this assistance is currently provided to areas affected by earthquakes, CBO estimates that implementing this subsection would have no effect on the federal budget.

Enacting the legislation would not affect direct spending and revenues; therefore, pay-as-you-go procedures do not apply. CBO estimates that enacting the legislation would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 654 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would impose no costs on state, local, or tribal governments.

The CBO staff contact for this estimate is Robert Reese. The estimate was approved by Theresa Gullo, Assistant Director for Budget Analysis.

#### PERFORMANCE GOALS AND OBJECTIVES

With respect to the requirement of clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goal and objective of this legislation, as amended, is to direct the Administrator of the FEMA to develop a plan for the purchase and installation of an earthquake early warning system for the CSZ.

#### ADVISORY OF EARMARKS

Pursuant to clause 9 of rule XXI of the Rules of the House of Representatives, the Committee is required to include a list of congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(e), 9(f), and 9(g) of rule XXI of the Rules of the House of Representatives. No provision in the bill, as amended, includes an earmark, limited tax benefit, or limited tariff benefit under clause 9(e), 9(f), or 9(g) of rule XXI.

#### DUPLICATION OF FEDERAL PROGRAMS

Pursuant to clause 3(c)(5) of rule XIII of the Rules of the House of Representatives, the Committee finds that no provision of H.R. 654, as amended, establishes or reauthorizes a program of the federal government known to be duplicative of another federal program, a program that was included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111–139, or a program related to a program identified in the most recent Catalog of Federal Domestic Assistance.

#### DISCLOSURE OF DIRECTED RULE MAKINGS

Pursuant to section 3(i) of H. Res. 5, 115th Cong. (2017), the Committee finds that enacting H.R. 654, as amended, does not direct the completion of a specific rule making within the meaning of section 551 of title 5, United States Code.

#### FEDERAL MANDATE STATEMENT

The Committee adopts as its own the estimate of federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act (Public Law 104–4).

#### PREEMPTION CLARIFICATION

Section 423 of the Congressional Budget Act of 1974 requires the report of any Committee on a bill or joint resolution to include a statement on the extent to which the bill or joint resolution is intended to preempt state, local, or tribal law. The Committee states that H.R. 654, as amended, does not preempt any state, local, or tribal law.

#### ADVISORY COMMITTEE STATEMENT

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act are created by this legislation.

#### APPLICABILITY OF LEGISLATIVE BRANCH

The Committee finds that the legislation, as amended, does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

## SECTION-BY-SECTION ANALYSIS OF LEGISLATION

*Section 1: Short title; Definition*

Section 1 designates the short title as the “Pacific Northwest Earthquake Preparedness Act of 2017” and defines the Cascadia Subduction Zone.

*Section 2: Earthquake early warning system for cascadia subduction zone*

This section directs the Administrator of FEMA to develop and submit to Congress a plan for the purchase and installation of an earthquake early warning system for the CSZ and to identify the funds necessary for implementation of the plan.

*Section 3: Earthquake and Tsunami Task Force*

This section directs the President to establish an Earthquake and Tsunami Task Force charged with developing a comprehensive strategy and recommendations on how the Nation should prepare and plan for, mitigate against, respond to, recover from, and more successfully adapt to a CSZ event.

*Section 4: National preparation and response efforts relating to earthquakes and tsunamis*

This section states that the Administrator of FEMA is responsible for the Nation’s efforts to reduce the loss of life and property, and to protect the Nation, from an earthquake, tsunami, or combined event.

*Section 5: Additional hazard mitigation activities*

This section amends the Stafford Act to articulate eligible uses of mitigation assistance to include activities that help reduce the risk of future damage, hardship, loss, or suffering in an area affected by earthquake hazards.

### CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

### CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (new matter is printed in italic and existing law in which no change is proposed is shown in roman):

### **ROBERT T. STAFFORD DISASTER RELIEF AND EMERGENCY ASSISTANCE ACT**

\* \* \* \* \*

## **TITLE IV—MAJOR DISASTER ASSISTANCE PROGRAMS**

\* \* \* \* \*

### **SEC. 404. HAZARD MITIGATION.**

(a) IN GENERAL.—The President may contribute up to 75 percent of the cost of hazard mitigation measures which the President has determined are cost-effective and which substantially reduce the risk of future damage, hardship, loss, or suffering in any area affected by a major disaster. Such measures shall be identified following the evaluation of natural hazards under section 322 and shall be subject to approval by the President. Subject to section 322, the total of contributions under this section for a major disaster shall not exceed 15 percent for amounts not more than \$2,000,000,000, 10 percent for amounts of more than \$2,000,000,000 and not more than \$10,000,000,000, and 7.5 percent on amounts of more than \$10,000,000,000 and not more than \$35,333,000,000 of the estimated aggregate amount of grants to be made (less any associated administrative costs) under this Act with respect to the major disaster.

(b) PROPERTY ACQUISITION AND RELOCATION ASSISTANCE.—

(1) GENERAL AUTHORITY.—In providing hazard mitigation assistance under this section in connection with flooding, the Administrator of the Federal Emergency Management Agency may provide property acquisition and relocation assistance for projects that meet the requirements of paragraph (2).

(2) TERMS AND CONDITIONS.—An acquisition or relocation project shall be eligible to receive assistance pursuant to paragraph (1) only if—

(A) the applicant for the assistance is otherwise eligible to receive assistance under the hazard mitigation grant program established under subsection (a); and

(B) on or after the date of enactment of this subsection, the applicant for the assistance enters into an agreement with the Administrator that provides assurances that—

(i) any property acquired, accepted, or from which a structure will be removed pursuant to the project will be dedicated and maintained in perpetuity for a use that is compatible with open space, recreational, or wetlands management practices;

(ii) no new structure will be erected on property acquired, accepted or from which a structure was removed under the acquisition or relocation program other than—

(I) a public facility that is open on all sides and functionally related to a designated open space;

(II) a rest room; or

(III) a structure that the Administrator approves in writing before the commencement of the construction of the structure; and

(iii) after receipt of the assistance, with respect to any property acquired, accepted or from which a structure was removed under the acquisition or relocation program—

(I) no subsequent application for additional disaster assistance for any purpose will be made by the recipient to any Federal entity; and

(II) no assistance referred to in subclause (I) will be provided to the applicant by any Federal source.

(3) STATUTORY CONSTRUCTION.—Nothing in this subsection is intended to alter or otherwise affect an agreement for an acquisition or relocation project carried out pursuant to this section that was in effect on the day before the date of enactment of this subsection.

(c) PROGRAM ADMINISTRATION BY STATES.—

(1) IN GENERAL.—A State desiring to administer the hazard mitigation grant program established by this section with respect to hazard mitigation assistance in the State may submit to the President an application for the delegation of the authority to administer the program.

(2) CRITERIA.—The President, in consultation and coordination with States and local governments, shall establish criteria for the approval of applications submitted under paragraph (1). Until such time as the Administrator promulgates regulations to implement this paragraph, the Administrator may waive notice and comment rulemaking, if the Administrator determines doing so is necessary to expeditiously implement this section, and may carry out this section as a pilot program. The criteria shall include, at a minimum—

(A) the demonstrated ability of the State to manage the grant program under this section;

(B) there being in effect an approved mitigation plan under section 322; and

(C) a demonstrated commitment to mitigation activities.

(3) APPROVAL.—The President shall approve an application submitted under paragraph (1) that meets the criteria established under paragraph (2).

(4) WITHDRAWAL OF APPROVAL.—If, after approving an application of a State submitted under paragraph (1), the President determines that the State is not administering the hazard mitigation grant program established by this section in a manner satisfactory to the President, the President shall withdraw the approval.

(5) AUDITS.—The President shall provide for periodic audits of the hazard mitigation grant programs administered by States under this subsection.

(d) STREAMLINED PROCEDURES.—

(1) IN GENERAL.—For the purpose of providing assistance under this section, the President shall ensure that—

(A) adequate resources are devoted to ensure that applicable environmental reviews under the National Environmental Policy Act of 1969 and historic preservation reviews under the National Historic Preservation Act are completed on an expeditious basis; and

(B) the shortest existing applicable process under the National Environmental Policy Act of 1969 and the National Historic Preservation Act is utilized.

(2) AUTHORITY FOR OTHER EXPEDITED PROCEDURES.—The President may utilize expedited procedures in addition to those required under paragraph (1) for the purpose of providing assistance under this section, such as procedures under the Prototype Programmatic Agreement of the Federal Emergency Management Agency, for the consideration of multiple structures as a group and for an analysis of the cost-effectiveness and fulfillment of cost-share requirements for proposed hazard mitigation measures.

(e) ADVANCE ASSISTANCE.—The President may provide not more than 25 percent of the amount of the estimated cost of hazard mitigation measures to a State grantee eligible for a grant under this section before eligible costs are incurred.

(f) USE OF ASSISTANCE.—*Recipients of hazard mitigation assistance provided under this section and section 203 may use the assistance to conduct activities to help reduce the risk of future damage, hardship, loss, or suffering in any area affected by earthquake hazards, including—*

(1) *improvements to regional seismic networks in support of building a capability for earthquake early warning;*

(2) *improvements to geodetic networks in support of building a capability for earthquake early warning; and*

(3) *improvements to seismometers, Global Positioning System receivers, and associated infrastructure in support of building a capability for earthquake early warning.*

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